

## APPENDIX.

### QUESTIONS USED AT THE PRELIMINARY EXAMINATION,

SEPTEMBER 15, 1874.

These questions are printed merely to indicate, in a general way, to those who may be preparing to enter the school, something of the standard required for admission.

### GEOGRAPHY.

1. Name five States drained by the Mississippi River.
2. Where is Puget Sound? Samana Bay?
3. What is the latitude and the longitude of Greenwich?
4. How many degrees of latitude are there between the Equator and the North Pole?
5. How many degrees of latitude are there in the Torrid Zone?
6. What bodies of water are connected by the Suez Canal, and what is the advantage of it?
7. Name five of the largest cities in the world and the countries in which they are respectively situated.
8. What is remarkable about the tides in the Bay of Fundy?
9. What is the theory of volcanoes? Are they ever found far from the ocean?
10. Is there any difference between a degree measured on the Equator and one measured on the Tropics?
11. What are the Trade winds?
12. What route should you take to go around the world in the shortest possible time?
13. Where is Alaska and to what government does it belong?
14. Which is the farther North, New York or Rome?
15. How many degrees of longitude are there?
16. What is the diameter of the earth's orbit?
17. What event in Iceland has recently attracted attention?
18. Name the Atlantic States, with their capitals.
19. Draw an outline map of Massachusetts, locating Boston, Worcester and Springfield.
20. Name three articles of freight in most constant transit from West to East, and *vice versa*.

## ARITHMETIC.

1. Add three million, twenty-four thousand, five hundred and six; two million, nine hundred and ninety-nine; and two hundred thousand, five hundred.
2. From 1,002,406 subtract 2,808.
3. Multiply 3040 by 3040.
4. Divide 1,000,000 by 25.
5. Divide 408,040 by 202.
6.  $2\frac{2}{3} + 1\frac{8}{24} + \frac{2}{3}\frac{4}{6} = ?$
7.  $2\frac{1}{2} \times 2\frac{1}{2} = ?$
8. Change  $\frac{3}{8}$  to a decimal fraction.
9. From 3,025 subtract .96.
10. From a cask containing 20 gal., 5 gal. 2 qt. 1 pt. were withdrawn. How much remained?
11. At \$3 per rod, what will it cost to build a fence around a lot 8 rods long and 5 rods wide?
12. How many bottles holding 3 qt. 1 pt. each, can be filled from a cask containing  $45\frac{1}{2}$  gallons?
13. How many yards of carpeting are required for a room 16' 6" long and 10' 6" wide?
14. A farm was bought for \$4500 and sold so as to gain \$900; what was the gain per cent.?
15. Sold a horse for \$180, thereby gaining 20 per cent.; required the cost.
16. What principal will yield \$75 interest in one year, 8 mos. at 6 per cent.?
17. When the rate of discount is 6 per cent., what will a bank pay for a note of \$560, 2 mos. 12 days before it becomes due.
18. If 4 men in 8 days cut 48 cords of wood, how many cords will 5 men cut in 6 days?
19. Choose any one of these 4 examples and perform:
  - 1'. What is the length of the side of a square field containing an acre?
  - 2'. What costs a load of wood 6 ft. 6 in. long, 3 ft. 6 in. high, and 4 ft. wide, at \$8 per cord?
  - 3'. How many sq. in. in the surface of a box, 6 in. long, 4 in. wide, 3 in. high?
  - 4'. A block is 16 in. long and 12 in. wide. What is the distance between opposite corners?
20. Answer two of the following questions:
  - 1'. How many cu. in. in a gal.?
  - 2'. " " grains in a pound avoirdupois?
  - 3'. " " miles in a degree?
  - 4'. " " pounds in a ton?
  - 5'. " " single things in a gross?

## GRAMMAR.

1. Name four authors, two English and two American, who may be taken as authorities in the use of the English language.
2. Make a list of ten parts of speech.
3. Make another list reducing the number to eight, without essential omission.
4. Write a sentence containing at least five parts of speech, and name them.

"I am sure *that that that that* the teacher gave me to parse did not occur in yesterday's lesson."

5. Give the part of speech of each italic word in the above sentence.
6. Write a sentence containing two nouns of different classes.
7. Write one containing two pronouns of different classes.
8. Write one containing two adjectives of different classes.
9. Write one containing a transitive verb in the active voice.
10. Reconstruct your last sentence so that the verb shall be in the passive voice, without altering the sense.
11. Write four sentences containing, in turn, the verbs *lie, lay, sit, set*, used correctly in any of their forms.

"Alas! the red torch of war furnishes the only light in which we can clearly see the blessings of peace."

12. What rhetorical figure do you find in the above sentence?
13. Re-write the sentence, dropping the figure but retaining the sense.
14. Of how many propositions does the sentence consist, how are they connected, and what is the grammatical subject and predicate of each.
15. Give the part of speech of each word in the sentence.
16. Parse, in full, the third noun in the sentence.
17. Parse, in like manner, the second verb.
18. Compare the adverb.
19. Re-write the following sentences, correcting any errors and underlining those which you consider already correct:
  - (a.) Between you and I there lies a quarrel.
  - (b.) I am not sure that it is he.
  - (c.) He hasn't come, I don't think.
  - (d.) I expect that he is angry.
  - (e.) Who is he writing to?
  - (f.) Which of the two sons is the eldest?
  - (g.) He had evidently drunk too much wine.
  - (h.) I bought it of my wive's brother.
20. At what age do you think the study of grammar can be profitably begun?

## HISTORY.

1. What four nations explored the territory which is now the United States?
2. What was the theory of Columbus with reference to his discoveries?
3. State what is meant by Old and by New Style.
4. When did Slavery begin, and when end, in the United States?
5. Explain why the colonists, prior to leaving England, very willingly paid the impost duty on tea sent from China, but rebelled against the tax on tea, exported from England to America.
6. What traits of character entitled Washington to the reputation he enjoyed.
7. Who was sent as minister to England, to discuss the conditions of a treaty, and who to France?
8. What political question was involved in the "Missouri Compromise"?
9. What was the "Munroe Doctrine"?
10. State the cause of the Mexican War.
11. Name two Generals, who distinguished themselves in this war.
12. What was repealed by the "Kansas-Nebraska bill"?
13. Who laid the first submarine cable, and between what two points?
14. Name the two cities most carefully guarded by the opposing armies during the late rebellion.